

WHAT IS CLAIMED IS:

1. Compacting tool for the production of a multi-layer concrete pipe in a mold mantle, comprising:

a shaping device comprising at least one of a distributor roller, pressing roller, pressing piston or smoothing piston, or combinations thereof, said shaping device having an outer mantle surface for shaping an inside wall of the concrete pipe and rotates about a driven axle, and

an adjustment device for connecting the shaping device with the driven axle, so that a distance between the outer mantle surface and the driven axle can be changed.

2. Compacting tool according to claim 1, wherein the adjustment device has a connecting link guide that extends in a curved or straight path between two points, at different distances from the driven axle, and a sliding block that slides in the connecting link guide.

3. Compacting tool according to claim 1, wherein the adjustment device has a pivot lever that is mounted

eccentrically relative to the driven axle and is connected with the shaping device, said pivot lever having an end that faces away from a mounting point and which can be pivoted between two points having a different distance from the driven axle.

4. Compacting tool according to claim 1, wherein the adjustment device has at least one electrically, hydraulically, or pneumatically activated drive motor, which is assigned to the shaping device, for adjustment.

5. Compacting tool according to claim 4, wherein the driven axle is formed by at least two coaxial hollow shafts that lie inside one another, and that an electrical, hydraulic, or pneumatic line leads through the inner hollow shaft to the adjustment device.

6. Compacting tool according to claim 1, wherein the driven axle is formed by two coaxial hollow shafts that lie inside one another, wherein another shaft for driving the adjustment device is passed through the inner hollow shaft.

7. Compacting tool according to claim 1, wherein the shaping device comprises a distributor having several distributor rollers or distributor rockers that act essentially radially, a compactor having several pressing rollers or compacting rockers that act essentially radially, and a smoothing tool.

8. Compacting tool according to claim 7, wherein the distributor rotates about the driven axle in a direction opposite to the compactor and at a different speed.

9. Compacting tool according to claim 1, further comprising a spray head for distributing and compacting concrete mixtures, which is arranged above the smoothing tool.

10. Device for the production of a multi-layer concrete pipe, comprising:

a compacting tool comprising:

a shaping device comprising at least one of a distributor roller, pressing roller, pressing piston or smoothing piston, or combinations thereof, said shaping device having an outer mantle surface for shaping an inside

wall of the concrete pipe and rotates about a driven axle,
and

an adjustment device for connecting the
shaping device with the driven axle, so that the distance
between the outer mantle surface and the driven axle can be
changed;

at least one stand in which said compacting
tool is mounted;

at least one turntable on which several mold
mantles standing vertically can be pivoted into the stand in
cycles; and

at least one charging system for filling at
least one concrete mixture into one of the mold mantles.

11. Device according to claim 10, wherein at least
two charging systems are assigned to a stand.

12. Device according to claim 11, wherein at least
one of the charging systems has a concrete silo having an
assigned filling belt.

13. Device according to claim 11, wherein at least one of the charging systems has a concrete pump having a pump hose.

14. Method for the production of a multi-layer concrete pipe, comprising the following steps:

pivoting a mold mantle, which stands essentially vertically, into a stand;

filling the mold mantle with a first concrete mixture by means of a first charging system;

distributing and compacting the concrete mixture in the mold mantle by means of a rotating and vertically displaceable compacting tool;

pivoting the mold mantle, which stands essentially vertically, out of the stand and removing the concrete pipe from the mold;

wherein before the concrete pipe is removed from the mold, a second concrete mixture is filled into the mold mantle, said mold mantle standing essentially vertically, and a diameter of the compacting tool for distributing and compacting the second concrete mixture is reversibly reduced.

15. Method according to claim 14, wherein after the concrete pipe has been pivoted out and removed from the mold, the diameter of the compacting tool for distributing and compacting the first concrete mixture is reversibly enlarged.

16. Method according to claim 14, wherein after the first concrete mixture has been distributed and compacted, a direction of rotation of the compacting tool is changed.

17. Method according to claim 14, wherein after the first concrete mixture has been distributed and compacted, a speed of rotation of the compacting tool is changed.